

Remarks

Claims 1, 10, 16, 17, 42, and 43 have been amended. Claims 2, 7-9, and 19-20 have been canceled. Claims 63-65 have been added. Upon entry of this amendment, claims 1, 3-6, 10-18, and 21-65 will be pending.

Applicants would like to point out that claims 58-62, added in our Amendment filed November 16, 2006, were inadvertently omitted from the Amendment filed on March 26, 2007, and so were not included in the "Disposition of Claims" section of the Office Action dated May 30, 2007. These claims have been included above. Applicants apologize for any inconvenience caused by this omission.

Claim Rejections

Claim Rejections under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-2, 7-9, and 19-20 under 35 U.S.C. § 102(b) as being anticipated by Kretz (U.S. Patent No. 6,110,719). Applicant respectfully traverses.

Under 35 U.S.C. § 102(b), "[a] claim is anticipated *only* if *each and every* element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) emphasis added.

Claims 1 and 16 (the independent claims) are limited to a composition comprising at least:

a) phytate, and

b) a modified compound suitable for being immobilized on a support.

Kretz describes an enzyme assay wherein the enzymatic activity of phytase is evaluating by assaying its hydrolysis of the substrate phytate. In the course of the assay the phytate is placed in a buffer along with the phytase.

Kretz does not teach or suggest the inclusion of a modified compound in the buffer composition described therein. Therefore, since Kretz does not teach each and every element of the claims, it does not anticipate the instant claims. Applicant respectfully requests that the rejection be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-2 and 7-21: Kreft et al. and Veraart et al.

The Examiner rejected claims 1-2 and 7-21 under 35 U.S.C. § 103(a) as being unpatentable over Kreft et al. and Veraart et al. Applicant respectfully traverses.

To establish *prima facie* obviousness, three basic criteria must be met. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations." (See MPEP 2142).

The Examiner contends that Kreft et al. disclose nucleic acid hybridization compositions comprising nucleic acids, anionic surfactant SDS, inorganic phosphate and sodium phosphate. The Examiner further contends that Veraart et al. disclose the use of phytic acid with a pH buffer comprising inorganic phosphate and that Veraart et al. teach that phytic acid is a large, polyionic molecule whose ionic strength is relatively large as compared with its concentration.

The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the hybridization buffer of Kreft et al. with the phytic acid of Veraart et al. since phytic acid has a relatively large ionic strength as compared with its concentration.

Claims 1 and 16 (the independent claims) have been amended to include a modified compound suitable for being immobilized on a support. Neither Kreft et al. nor Veraart et al. teach or even suggest the addition of a modified compound that is suitable for immobilization on a support. Thus, the combined teaching of the references fails to disclose each and every element of the claims.

For at least the reasons outlined above, Applicant submits that claims 1 and 16 and all claims that depend therefrom are not obvious in light of the combination of Kreft et al. and Veraart et al. Applicant respectfully requests that the rejection be withdrawn.

Claims 1 and 14-15: Kretz in view of Sambrook et al.

The Examiner rejected claims 1 and 14-15 under 35 U.S.C. § 103(a) as being unpatentable over Kretz and Sambrook et al. Applicant respectfully traverses.

Claim 1 is limited to a composition that comprises a buffer, phytate, and a modified compound that is suitable for immobilization on a support.

As already established, Kretz discloses an enzyme assay system wherein phytase is added to a buffer including phytate. Kretz does not teach or suggest modifying the phytase as required by claim 1. Likewise, Kretz does not teach or suggest the addition of any other modified compound.

Sambrook et al. teaches buffer compositions including phosphate. Sambrook et al. do not teach or even suggest the addition of a modified compound that is suitable for immobilization on a support.

Neither Kretz nor Sambrook et al. teach or even suggest the addition of a modified compound that is suitable for immobilization on a support. Thus, the combined teaching of the references fails to disclose each and every element of the claims.

For at least the reasons outlined above, Applicant submits that claim 1 and all claims that depend therefrom are not obvious in light of the combination of Kretz and Sambrook et al. Applicant respectfully requests that the rejection be withdrawn.

Claims 42-45: Diehl et al. and Veraart et al.

The Examiner rejected claims 42-45 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Diehl et al. and Veraart et al. Applicant respectfully traverses.

Claims 42-45 are limited to a method of forming spots comprising at least the steps of:

- a) applying a modified compound and phytate to a surface and
- b) forming a spot on the surface.

Diehl et al. teach a method of producing DNA microarrays using unpurified PCR products. Diehl et al. fail to teach or suggest the application of phytate and a modified compound to a surface. Veraart et al. teach the use of phytic acid to improve protein analysis. Diehl et al. do not teach or suggest applying a modified compound to a support. Therefore, the combined teachings of the references fail to disclose or suggest each and every limitation of the claims.

For at least the reasons outlined above, Applicant submits that claims 42-45 are not obvious in light of the combination of Diehl et al. and Veraart et al. Applicant respectfully requests that the rejection be withdrawn.

Claims 42 and 45: Diehl et al., Veraart et al. and Lemieux et al.

The Examiner rejected claims 42 and 45 under 35 U.S.C. § 103(a) as unpatentable over Diehl et al., Veraart et al. and Lemieux et al. Applicant respectfully traverses.

Claims 42 and 45 are limited to a method of forming spots comprising at least the steps of:

- c) applying a modified compound and phytate to a surface and
- d) forming a spot on the surface.

Lemieux et al. teach pin piezoelectric spotting. The teachings and deficiencies of Diehl et al. and Veraart et al. have already been discussed in detail above.

Diehl et al. teach a method of producing DNA microarrays using unpurified PCR products. Diehl et al. fail to teach or suggest the application of phytate and a modified compound to a surface. Veraart et al. teach the use of phytic acid to improve protein analysis. Diehl et al. do not teach or suggest applying a modified compound to a support.

Lemieux et al. do not teach applying a modified compound to a surface. As already established, neither Diehl et al. nor Veraart et al. teach applying a modified compound to a surface. [Therefore, Lemieux et al. do not cure the deficiencies of Diehl et al. and Veraart et al. and *prima facie* obviousness has not been established. That is, even if all three references were combined, not all of the limitations would be disclosed or suggested. Therefore, the claims are not obvious in light of the combination of Diehl et al., Veraart et al. and Lemieux et al. Applicant respectfully requests that this rejection be withdrawn.

In view of the foregoing, it is submitted that each of claims 1-2, 7-21, and 42-45 are in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

If the Examiner feels that prosecution of the present application can be materially advanced by a telephonic interview, the undersigned would welcome a call at the number listed below.

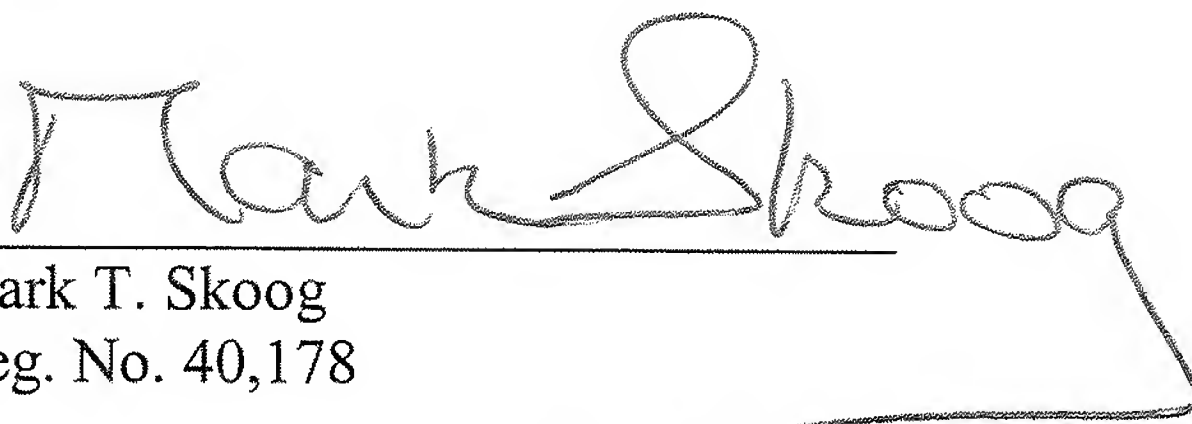
Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903
(612) 332-5300

Date:

30 July '07

MTS:kf


Mark T. Skoog
Reg. No. 40,178

23552

PATENT TRADEMARK OFFICE